

2011-04-08 Friday Morning Notes

Friday, April 08, 2011
7:46 AM

Stacking and Transfers

- Stacked 25.8mA/hr with a production of 22 pbars/Mp with 8.32 Tp on target.
- Unstacked 580E10 In 70 transfers over 24 sets with an average overall efficiency of 96.4%
 - Filter out the three transfers >34mA (23953 - 42mA, 23957 - 35mA, 23971 - 55mA) and we have 96.7% efficiency
 - For the week, Unstacked 3454E10 (493/day) in 405 transfers (58/day) in 134 sets (19/day)

Operational Happenings

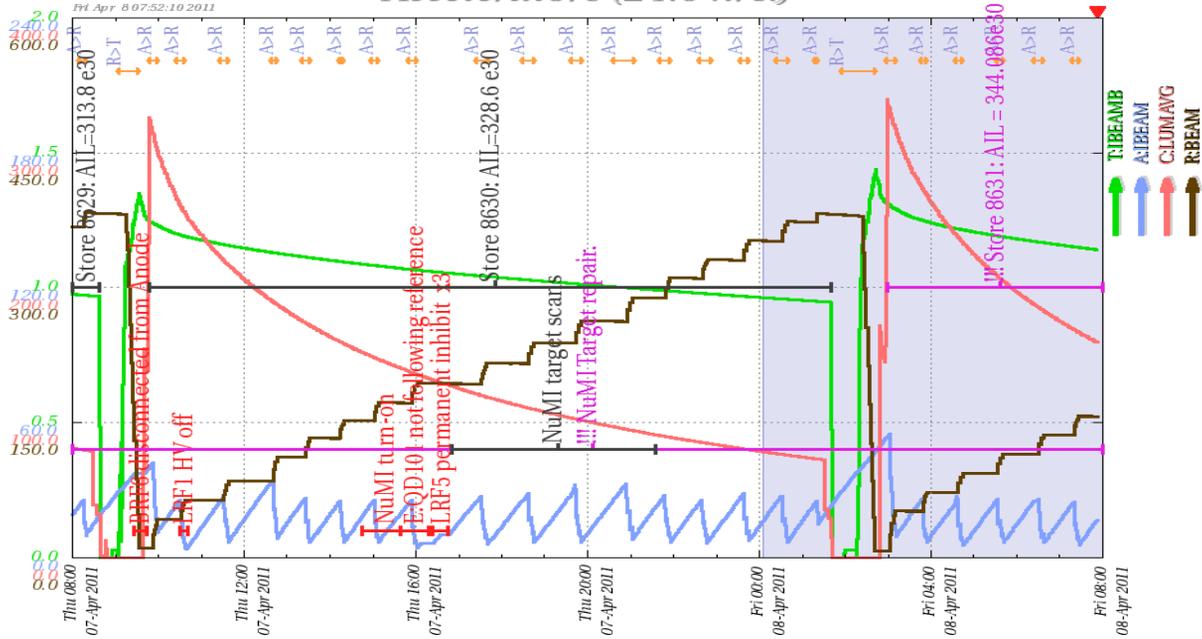
- Handed over machine coordinator duties to AI!
- Last day of continuing resolution...will we have a government shutdown?

Numbers

- 24 hour numbers
 - Stacking
 - Pbars stacked: 585.48 E10
 - Time stacking: 23.53 Hr
 - Average stacking rate: 24.88 E10/Hr
 - Uptime
 - Number of pulses while in stacking mode: 32774
 - Number of pulses with beam: 31472
 - Fraction of up pulses was: 96.03%
 - The uptime's effect on the stacking numbers
 - Corrected time stacking: 22.60 Hr
 - Possible average stacking rate: 25.91 E10/Hr
 - Could have stacked: 609.70 E10/Hr
 - Recycler Transfers
 - Pbars sent to the Recycler: 578.99 E10
 - Number of transfers : 70
 - Number of transfer sets: 24
 - Average Number of transfer per set: 2.92
 - Time taken to shoot including reverse proton tuneup: 00.24 Hr
 - Transfer efficiency: 95.93%
 - Other Info
 - Average POT : 8.32 E12
 - Average production: 22.35 pbars/E6 protons
- 1 Week Numbers

Plots

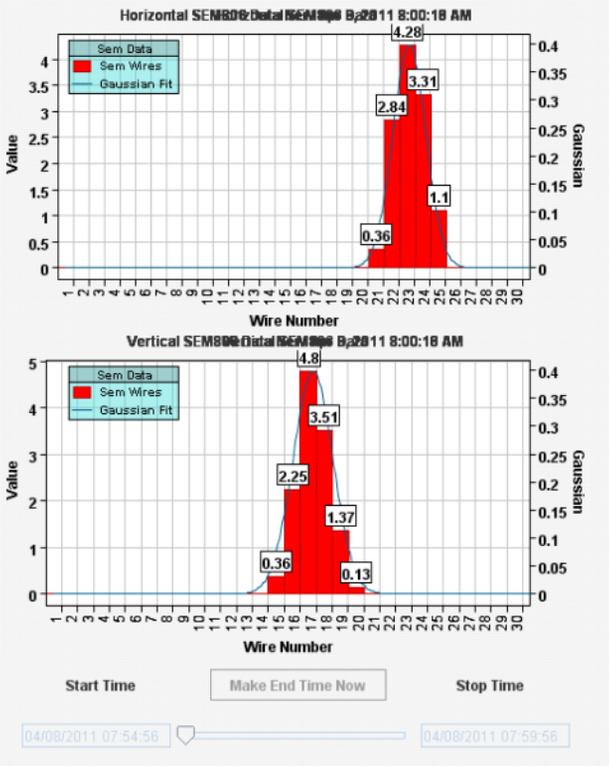
Accelerators (24.0 hrs.)



Horizontal Area New	11.89	Intensity
Horizontal Area Calc	210.79	Intensity
Horizontal Sigma New	2.97	mm
Horizontal Sigma Calc	2.81	mm
Horizontal Mean	24.49	mm
Vertical Area New	12.41	Intensity
Vertical Area Calc	214.7	Intensity
Vertical Sigma New	3.04	mm
Vertical Sigma Calc	2.86	mm
Vertical Mean	6.88	mm

View Lumberjack Data Pause Old Hardware

Get Logged Sem Data Animate Animation Delay milliseconds



Start Time Make End Time Now Stop Time

A:IBMINJ 15.847 e07 A:FRWDTH 11.269 Hz A:EMT3HN 0.484 pimm
 A:LFTOVR 0.944 % A:CENFRQ 628897. Hz A:EMT3VN 0.432 pimm
 A:STMEDS 10.35 MeV A:R2DDS1 628897. Hz A:XFRNXT 75.0 mA
 A:R1HLFB 27.494 kV

M:IEFF 0.0
 M:TR105B 8.278 E12

G:TURN14 12.0 Turns
 L:14SUM3 0.0 E12



A:STCKRT 25.99 mA/h

A:PRDCTN 23.544 E-6

A:IBEAM 21.319 mA

D:724TOR 8.461 E09
 G:RD2116 2.55 mRem

D:JNJFLX 26.689 McG
 D:FLXBTL 1.548 uSec
 D:R1HLFB 5.145 MV
 D:BPM110 25403.2 McG
 Z:PRDCTD 28.691 E-6

D:TGTCHK 147.424 %
 D:TGTPWR 58.874 KW

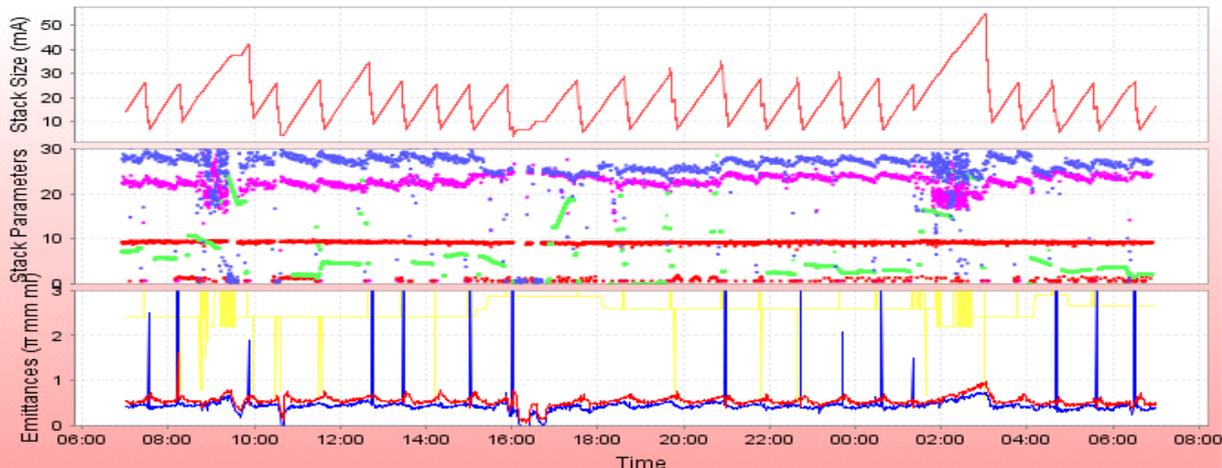
Pbar Beamlines BPM House Status

P1
 P2
 AP1
 AP2 F27
 AP2 AP50

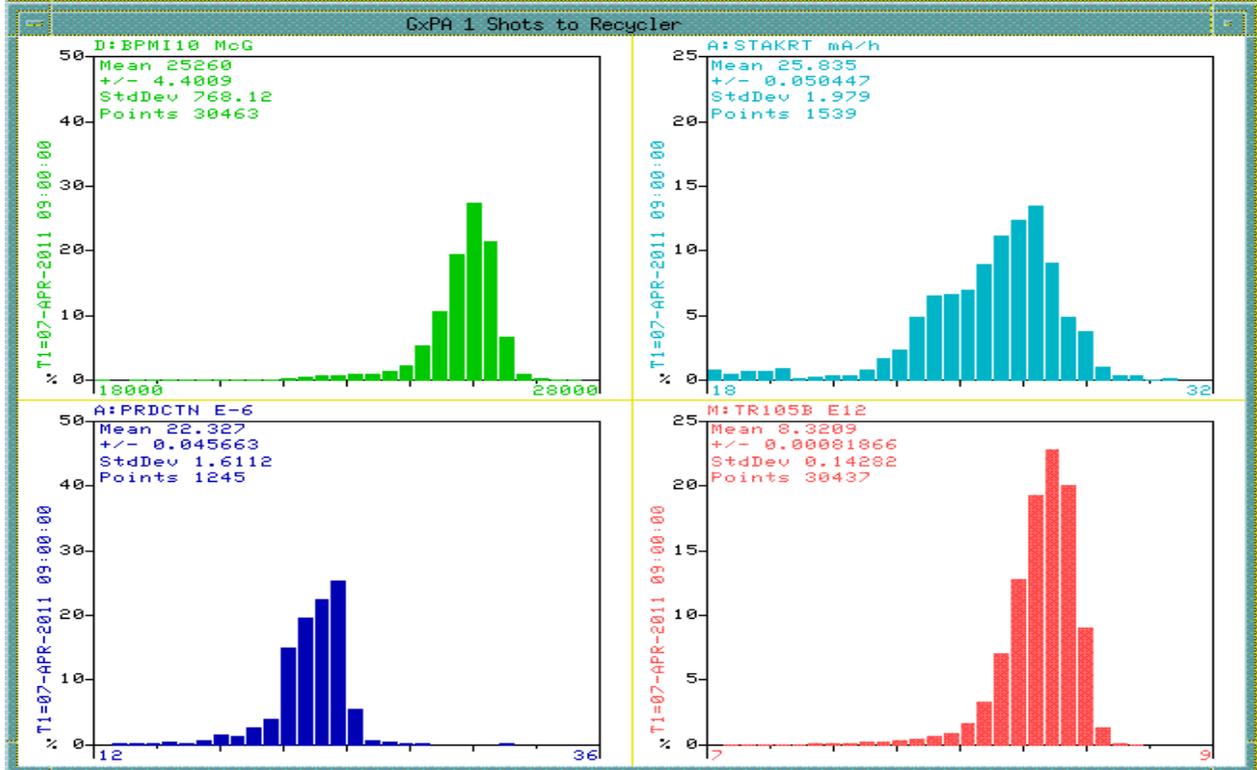
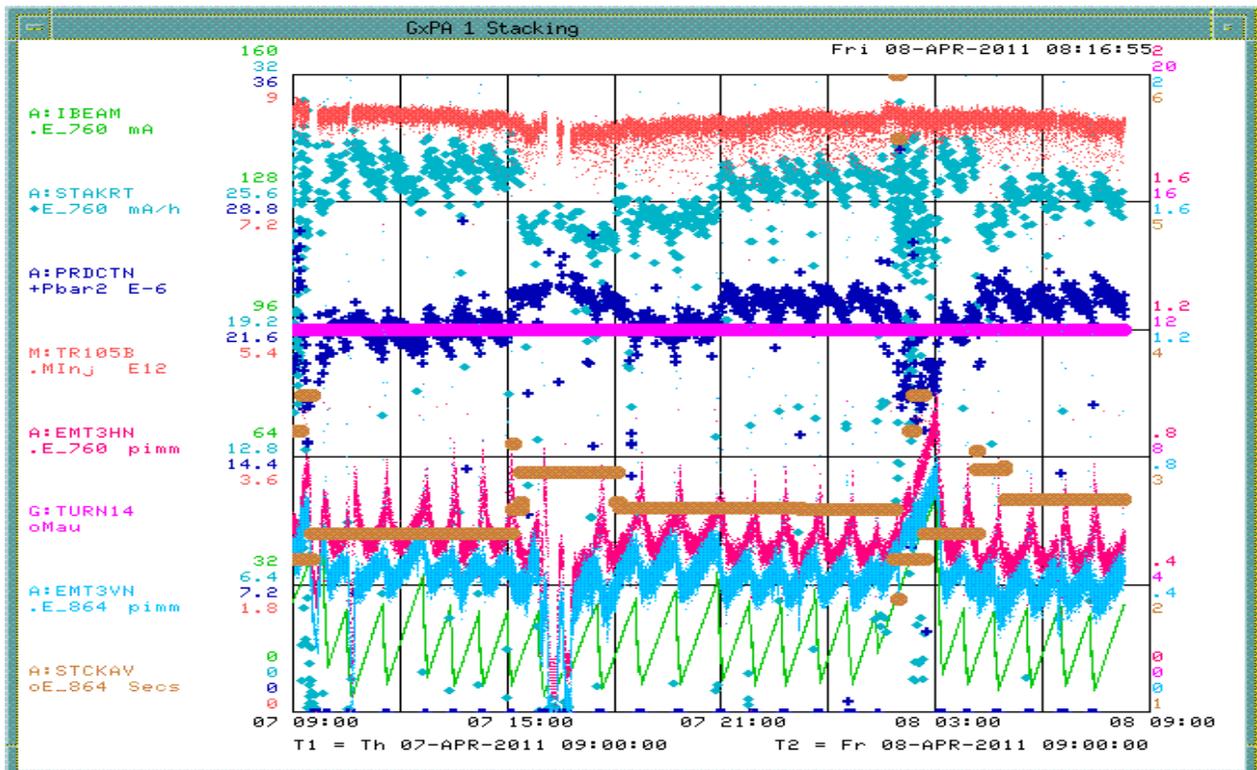
0x80 Event Detected
 A:STCKAV 2.67 Secs

Overthruster Status

Thu Apr 07 07:00:00 CDT 2011 -- Fri Apr 08 07:00:00 CDT 2011

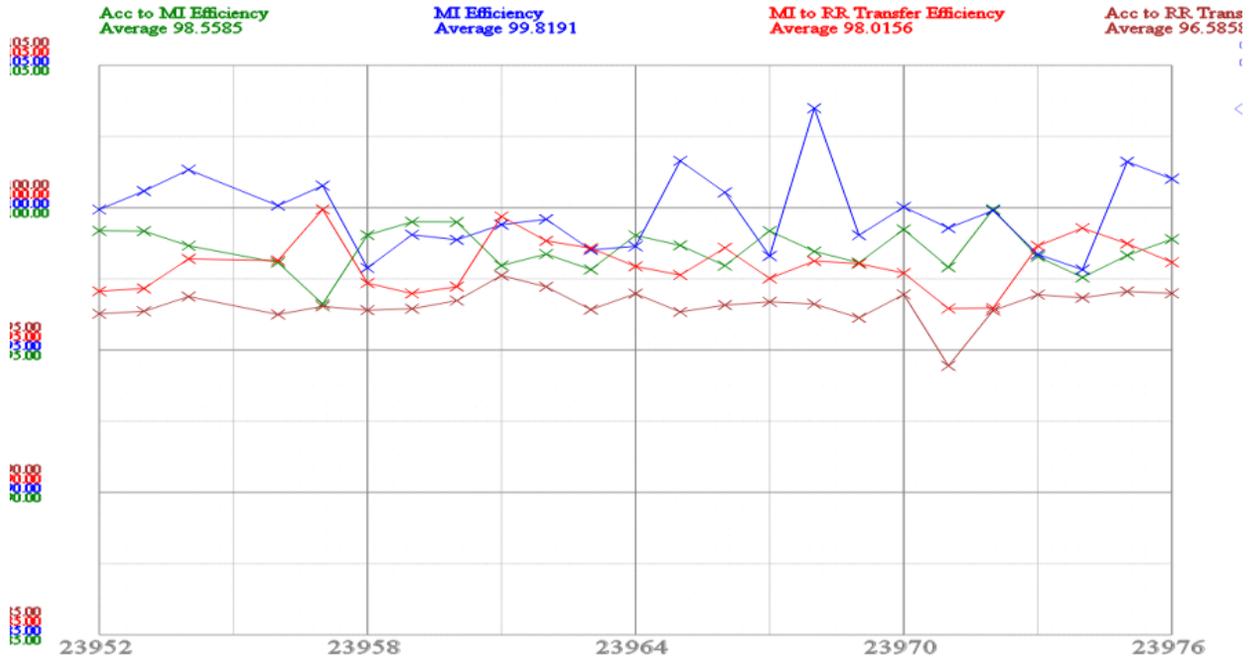


— A:IBEAM • A:STCKRT • Hourly Rate • M:TOR109 • A:PRDCTN — A:EMT3HN — A:EMT3VN
 — Ave Time between \$81's



24 hours

Acc->Rec Table Plotter



Column 1 Number_0_Pbar Transfer Shot #	Column 4 Number_3_Transfer Time	Column 21 Number_20_A-I BEAMB sampled on #91 (A:BEA M7), E10	Column 22 Number_21_A-I BEAMB sampled on #94 (A:BEA M9), E10	Unstacked (mA)	Column 23 Number_22_R: BEAMS (R:BEA ME0[0]) pre sfer E10	Column 24 Number_23_R: BEAM (R:BEA ME0[1]) post sfer, E10	Stashed	Acc to RR Eff	Acc to MI Eff	Acc to MI2 Eff	Acc to MI * Acc to MI2 Efficiency	Transfers	Sets	Column 5 Number_4_Acc Horizontal Emittance	Column 6 Number_5_Acc Vertical Emittance	Column 8 Number_7_Acc Longitudinal Emittance	
Totals =>				580.52			559.72	96.42%	98.50%	98.36%	96.89%	70	24	5.4568	4.0898	1.9674	
Daily Average =>				580.52			559.72					70	24				
23976	Friday, April 08, 2011	7:19	24.68	5.46	21.72	136.46	157.27	21.06	96.97%	98.70%	99.16%	97.87%	3	1	4.898	3.586	1.944
23975	Friday, April 08, 2011	6:30	26.44	6.41	22.75	114.80	136.66	22.11	97.16%	98.14%	99.71%	97.85%	3	1	5.143	4.034	2.015
23974	Friday, April 08, 2011	5:33	26.19	6.26	22.61	93.39	115.03	21.88	96.78%	97.85%	96.19%	94.12%	3	1	5.119	3.865	1.983
23973	Friday, April 08, 2011	4:37	25.12	5.31	22.29	72.23	93.63	21.59	96.86%	98.21%	96.85%	95.13%	3	1	4.814	3.588	1.973
23972	Friday, April 08, 2011	3:48	26.27	6.73	21.81	51.62	72.44	21.03	96.41%	99.39%	98.93%	98.32%	3	1	5.682	3.951	1.988
23971	Friday, April 08, 2011	3:02	54.89	9.22	48.81	7.13	52.07	45.83	93.91%	97.83%	97.34%	95.23%	4	1	7.323	5.441	1.916
23970	Friday, April 08, 2011	1:20	25.26	14.64	10.63	372.56	382.86	10.30	96.96%	99.24%	99.26%	98.50%	1	1	5.252	3.975	1.936
23969	Friday, April 08, 2011	0:32	27.91	6.75	24.00	351.60	374.19	23.12	96.35%	98.58%	97.80%	96.41%	3	1	5.257	4.085	1.978
23968	Thursday, April 07, 2011	23:38	28.46	7.17	24.06	330.48	353.21	23.27	96.72%	98.62%	101.20%	99.80%	3	1	5.419	4.271	1.989
23967	Thursday, April 07, 2011	22:40	26.00	6.48	22.33	310.50	331.78	21.61	96.77%	99.30%	97.77%	97.09%	3	1	5.226	4.077	1.996
23966	Thursday, April 07, 2011	21:48	27.97	6.55	24.14	288.43	311.34	23.32	96.63%	97.96%	98.33%	96.33%	3	1	5.372	4.09	1.973
23965	Thursday, April 07, 2011	20:55	33.39	7.95	28.24	262.58	289.27	27.19	96.26%	98.53%	100.35%	98.88%	3	1	5.607	4.296	1.964
23964	Thursday, April 07, 2011	19:43	30.44	6.68	26.22	238.54	263.45	25.40	96.86%	98.81%	97.83%	96.67%	3	1	5.71	4.339	1.978
23963	Thursday, April 07, 2011	18:38	28.81	6.66	24.73	215.77	239.21	23.83	96.34%	98.08%	97.01%	95.15%	3	1	5.845	4.435	1.951
23962	Thursday, April 07, 2011	17:32	27.40	5.66	24.22	193.14	216.37	23.51	97.07%	98.32%	97.96%	96.32%	3	1	5.298	3.858	1.949
23961	Thursday, April 07, 2011	15:53	25.43	3.97	23.01	171.96	194.10	22.46	97.58%	98.59%	97.56%	96.19%	3	1	4.521	2.949	1.929
23960	Thursday, April 07, 2011	15:01	25.52	6.39	21.36	152.18	172.53	20.67	96.74%	99.52%	98.55%	98.08%	3	1	5.651	4.177	1.977
23959	Thursday, April 07, 2011	14:14	25.30	6.59	20.99	132.68	152.63	20.24	96.43%	98.84%	98.36%	97.22%	3	1	5.587	4.084	2.011
23958	Thursday, April 07, 2011	13:26	26.75	6.54	22.42	111.70	133.06	21.60	96.35%	99.33%	97.48%	96.82%	3	1	5.758	4.077	1.969
23957	Thursday, April 07, 2011	12:40	34.54	8.65	28.10	85.35	112.04	27.10	96.47%	97.06%	97.30%	94.44%	3	1	5.824	4.642	2
23956	Thursday, April 07, 2011	11:32	27.40	6.75	22.85	63.86	85.63	22.02	96.38%	98.07%	98.35%	96.45%	3	1	5.673	4.274	1.969
23954	Thursday, April 07, 2011	10:31	25.82	4.05	22.79	42.28	64.08	22.05	96.76%	98.48%	100.30%	98.78%	3	1	4.511	3.155	1.926
23953	Thursday, April 07, 2011	9:52	42.19	11.00	33.27	10.87	42.53	31.99	96.14%	98.95%	99.44%	98.40%	3	1	5.883	4.517	1.943
23952	Thursday, April 07, 2011	8:15	25.74	9.67	17.19	367.40	383.70	16.55	96.32%	99.32%	98.82%	98.15%	2	1	5.591	4.389	1.961

24 hours

Column 1 Number _0_Pbar Transfer Shot #	Column 4 Number_3_ Transfer Time	Column 21 Number _20_A:I BEAMB sampled on \$91 (A:BEA M7), E10	Column 22 Number _21_A:I BEAMB sampled on \$94 (A:BEA M9), E10	Unstacked (mA)	Column 23 Number _22_R: BEAMS (R:BEA ME0[0]) pre xfer E10	Column 24 Number _23_R: BEAM (R:BEA ME0[1]) post xfer, E10	Stashed	Acc to RR Eff	Acc to MI Eff	Acc to MI2 Eff	Acc to MI * Acc to MI2 Efficiency	Trans fers	Sets	Column 5 Number_4 _Acc Horizont al Emittanc e	Column 6 Number_5 _Acc Vertical Emittanc e	Column 8 Number_7 _Acc Longitu dinal Emittanc e
	Totals =>			470.34			454.79	96.69%	98.63%	98.46%	97.10%	70	21	5.3302	3.9788	1.9695
	Daily Average =>			470.34			454.79					70	21			

24 hours, take away transfers >34mA

Column 1 Number _0_Pbar Transfer Shot #	Column 4 Number_3_ Transfer Time	Column 21 Number _20_A:I BEAMB sampled on \$91 (A:BEA M7), E10	Column 22 Number _21_A:I BEAMB sampled on \$94 (A:BEA M9), E10	Unstacked (mA)	Column 23 Number _22_R: BEAMS (R:BEA ME0[0]) pre xfer E10	Column 24 Number _23_R: BEAM (R:BEA ME0[1]) post xfer, E10	Stashed	Acc to RR Eff	Acc to MI Eff	Acc to MI2 Eff	Acc to MI * Acc to MI2 Efficiency	Trans fers	Sets	Column 5 Number_4 _Acc Horizont al Emittanc e	Column 6 Number_5 _Acc Vertical Emittanc e	Column 8 Number_7 _Acc Longitu dinal Emittanc e
	Totals =>			3453.54			3283.51	95.08%	97.68%	97.58%	95.31%	405	134	5.4329	4.0849	1.9563
	Daily Average =>			493.36			469.07					58	19			

1 week